wife, who was his constant companion and herself a first-rate collector, was in the vicinity of Chapada and Cuyuba, in the Province of Matto Grosso in Brazil. The large collection of birds secured in that region is now divided between the British Museum and the American Museum of Natural History. In 1889 the Smiths collected in Mexico for Mr. Godman, who was then amassing material for the 'Biologia Centrali-Americana.' From 1890 to 1895 they were in the West Indies, in the interests of the West Indian Committee of the Royal Society and British Association. Later he collected in Colombia for the Carnegie Museum. Here, however, he became so seriously ill that he had to give up all further work in the Tropics.

A sketch of his life by Dr. W. J. Holland will be found in 'Science' (vol. xlix. 1919, pp. 481-483).

IX.—Notices of recent Ornithological Publications.

Cory's Catalogue of American Birds.

[Catalogue of Birds of the Americas and the adjacent Islands in the Field Museum of Natural History. By Charles B. Cory. Pt. ii. no. 2. Families Trogonidæ, Cuculidæ, Capitonidæ, Rhamphastidæ, Galbulidæ, Bucconidæ, and Picidæ. Pp. 317-607, 1 col. pl. Field Museum of Natural History Publication no. 203, Zool. ser. vol. xiii. Chicago, U.S.A., Dec. 31, 1919.]

The second part of Mr. Cory's Catalogue of the Birds of the Americas contains the lists of the species of the remaining families of Picarian birds left over from Part I. published in 1918 and reviewed in 'The Ibis' (1918, p. 500). The present part follows the lines of the previous one, and contains descriptions of all those species not mentioned in the Catalogue of the Birds in the British Museum or in Ridgway's 'Birds of North and Middle America.' We are very glad to see a great improvement in the proof-reading, and have hardly noticed any of the misprints which disfigured the first part.

We have found descriptions of about seven new species and subspecies in the text, and it would be a great convenience to workers if a list of these were printed in the introduction. They are as follows:—Coccyzns minor caymanensis Cayman Is., W.I., Nystalus maculatus nuchalis Ceara, Brazil, Soroplex campestris cearæ Ceara, Brazil, Chrysoptilus melanochlorus juæ Ceara, Brazil, C. punctigula notata Colombia, Celeus elegans approximans Brazil, Crocomorphus flavus peruvianus N. Pern. A coloured plate of the three subspecies of Celeus elegans forms a frontispiece to the volume.

Cory on the genus Rhynchocyclus.

[The relationships and geographical distribution of the species and races belonging to the genus *Rhynchocyclus*. By C. B. Cory. Proc. Biol. Soc. Washington, vol. 32, 1919, pp. 217–224.]

A useful revision of this complicated and extensive genus of South American Tyrant-birds. No new forms are described, twenty are included in the list.

Hellmayr's recent papers.

- Neue Vögel aus dem tropischen Amerika. Von E. C. Hellmayr und Josef Graf von Seilern. Verhandl. Orn. Ges. Bayern, xii. 1914, pp. 87-92.
- Weitere neue Formen aus Westindien und Venezuela. Id., ibid. pp. 201–205.
- 3. Ueber einen neuen Kernbeisser aus Venezuela. Id., ibid. pp. 160–161.
- 4. Ein kleiner Beitrag zur Ornithologie des Staates Espirito Santo, Sudostbrasilien. Von C. E. Hellmayr. Ibid. pp. 119-159.
- 5. Neue Formen aus dem neotropischen Gebiet. Id., ibid. pp. 206-214.
- Beschreibung von sechs neuen neotropischen Vögelformen, nebst einer Bemerkung über Ampelion einetus (Tsch.). Id., ibid. xiii. 1917, pp. 166-119.
- Miscellanea Ornithologica, H., HI., IV. fd., ibid. xiii. 1917 & 1918, pp. 188–200, 302–317; xiv. 1919, pp. 126–133.
- Bibliographisches und Kritisches über R. Schomburgk's Vügel von Britisch-Guiana. Id., ibid. xiv. 1920, pp. 270-274.
- 9. Drei Beiträge zur Nomenklatur der Vögel Europas. Id., ibid. xiii. 1917, pp. 87-104.
- Zur Nomenklatur zweier paläarktischen Krahen. Id., ibid. xiii. 1917, pp. 181–187.

 Hans Graf von Berlepsch—Eine Lebensskizze. Id., Journ. Ornith. 1915, pp. 557–568, portrait.

12. Description of a new Formicarian Bird from Colombia, by E. Hellmayr and Dr. J. v. Madarasz. Aquila, xii. 1914, p. 88.

13. Nomenclator der Vögel Bayerns. Von C. E. Hellmayr und H. Laubmann. Pp. i-viii+1-68. München (G. Fischer). 8vo.

We have recently received from Dr. Hellmayr a set of his publications during the war period, and the importance and accuracy of his work demands this somewhat long notice. The first eight of the papers listed contain descriptions of new species and subspecies of Neotropical birds, and for the enumeration of these we must refer our readers to the 'Zoological Record,' in which the new forms are duly recorded. In the paper numbered 6, a new Andean Jay is characterized under the name Cyanolyca viridicyanea cyanolema. This is obviously identical with the bird named and figured by Mr. W. L. Selater in the October number of 'The Ibis' of the same year, 1917 (p. 465, pl. viii.), and Hellmayr's name, having been published in February, must take precedence. Another nomenclatural clash is in regard to the Fan-tailed Raven of north-eastern Africa, Corvus affinis Rüpp. nec Shaw, which therefore requires a new name. Dr. Hartert renamed it C. rhipidurus in the 'Bulletin' of the B. O. Club, published Nov. 30, 1918; Hellmayr renamed it Corvus brachycercus in his Miscel. Orn. iv., published June 1919.

In the ninth paper on our list Dr. Hellmayr criticises three recently published check-lists of European birds: our own B. O. U. list, to which he gives a good deal of praise; that of Reichenow and Hesse (published in the 'Journal für Ornithologie' for 1916) of German birds, which meets with seant approval as being reactionary; and, finally, a Swiss list, published at Berne in 1915 and compiled by Th. Studer and G. von Burg. The 13th item on the list is Dr. Hellmayr's own contribution to the check-lists, and a comparison of the names used by him in his Bavarian list with those of the B. O. U. list shows that there are but few points of disagreement between them.

Hingston's Himalayan observations.

[A Naturalist in Himalaya. By R W. G. Hingston, M.C., M.B., I.M.S. Pp. xii+300; 24 illustr.; 1 map. London (Witherby), 1920. 8vo.]

Captain Hingston is a close observer of nature, and has had the good fortune to be stationed in an interesting and little-known valley of the Himalayan range. This valley, the British territory of Hazara, runs in the form of a wedge between the native state of Kashmir and the territory of the independent Afghan tribes of the Black Mountain.

Our previous knowledge of the birds of this area is due to the late Major C. H. T. Whitehead, who spent a short time at Kagan, in the upper part of the district, and contributed a few notes on his visit to 'The Ibis' and 'Journal of the Bombay Natural History Society.'

Through Hazara apparently a big stream of migration passes in spring and autumn, and it is to be regretted, from the point of view of readers of this Journal, that Captain Hingston did not pay as much attention to birds as he did to ants and spiders. True, he gives us a good pieture of the local migration from the plains of the Punjab to the lower valleys and hills of Hazara, but this is only a general sketch with practically no details.

Like many of us, Captain Hingston has been fascinated by the soaring of birds, and has made a special study of it. His remarks on the soaring of the Common Kite, or was it not rather *Milvus melanotis*, which take up nearly the whole of the single chapter on "Ornithological Observations," will be read with interest. The book is illustrated with a number of good photographs, including one of a male Paradise Flycatcher in fully-adult plumage.

Howard on Bird Territories.

[Territory in Bird-Life. By H. Eliot Howard. With illustrations by G. E. Lodge and H. Grönvold. Pp. xiv+308; 11 illustr.; 2 plans. London (Murray), 1920. 8vo. Price 21s.]

Most of our readers will remember Mr. Howard's beautiful

book on the British Warblers and of the theory which he first promulgated in that work of bird-territories and of the great importance of exclusive possession of a tract of land in bird-life. In this new work he has developed his views, and he endeavours to prove that the struggles and battles of male birds in spring are due, not so much to contention for the possession of mates as for the possession of tracts of land or estates to provide hunting-grounds from which to secure food for the young brood.

This new volume is of great interest, and if the author's conclusions are correct has a most important bearing on many biological problems. We hope to present to our readers a more extended and critical notice of it in the next number of 'The Ibis.'

Laubmann on the Kingfisher.

[Beiträge zur Kenntnis des Formenkreises *Alcedo atthis*. Von Dr. A. Laubmann. Arch. Naturges. Berlin, vol. 84, pt. A, 1920, pp. 43-82.]

Dr. Laubmann's paper deals with the subspecies of the bird which we have hitherto called Alcedo ispida; but owing to the fact that Linnaus described the Egyptian Kingfisher six pages before the familiar A. ispida under the title of Gracula atthis, the latter name must become the specific name of our familiar British bird. As, however, the British bird is subspecifically distinct from the Egyptian, we can retain the name Alcedo atthis ispida for our own form.

Dr. Laubmann has added another terror to systematic ornithology by making use of four names instead of three, and that something which comes between the species and the subspecies he calls a "formengruppe." According to this system our bird becomes Alcedo atthis atthis ispida, the Egyptian A. atthis atthis atthis, and together with several other subspecies makes up the "formengruppe" Alcedo atthis atthis, while another "formengruppe" is made up of three Moluccan subspecies and is termed Alcedo atthis hispidoides.

The subspecific races as revised by Hartert numbered four;

to these Dr. Laubmann has added four more, two of which (A. a. corsicana and A. a. formosana from Corsica and Formosa respectively) are new. In addition, some five intermediate races are separately listed which have to be designated by no fewer than five names, i. e. Alcedo atthis atthis ispida, an intermediate race between that of northern Europe and Corsica which occurs in northern Italy.

We fear Dr. Laubmann's quadrinomial system is too heavy a burden for the already harassed ornithologist to carry, and we shall be interested to see whether it is adopted, even among the more advanced systematists.

The paper contains a good historical review of the Kingfisher's systematic history, and paragraphs on individual and geographical variation and on the phylogeny of the group.

Lönnberg on the Birds of Juan Fernandez and Easter Islands.

[The Birds of the Juan Fernandez Islands and Notes on Birds from Easter Island. By Prof. Dr. Einar Lönnberg. Extracted from 'The Natural History of Juan Fernandez and Easter Island,' edited by Dr. Carl Skottsberg. Vol. iii.: pp. 1-24 (separately paged).]

This is an account of the birds collected during the Swedish Pacific Expedition in 1916–17 under the direction of Dr. Carl Skottsberg. Mr. Kåre Bäckström was the zoologist of the expedition, and has furnished some interesting notes and observations on the birds obtained.

The Juan Fernandez Islands are two in number—Masatierra and Masafuera, the former being the island always associated with Defoe's 'Robinson Crusoe.' They are over 100 miles apart, and lie in the southern Paeific, some 400 miles from the coast of Chile. There are eight species of indigenous land-birds out of a total bird population of about 30 species. These are all listed by Dr. Lönnberg with some interesting comments on their status and habits. Cinclodes oustaleti baeckstroemii and Pterodroma cooki masafueræ are described as new, and a photograph of the nest of the indigenous and peculiar Humming-bird (Eustephanus fernandensis) taken by Dr. Skottsberg is reproduced.

The expedition stayed on Easter Island only a short time, and the collections thence are not so complete. There are said to be twelve species inhabiting the island. Of these, examples of six were obtained, all sea birds. *Processerna cærulea skottsbergii* and *Pterodroma heraldica paschæ* are described as new.

It is interesting to note that the holy bird of the Easter Islands, about which Mrs. Routledge has written ('The Mystery of Easter Island,' London, 1919) and which is called locally "Manntara," is identified by Mr. Bäckström as Sterna lunata Peale, while Mrs. Routledge believes it to be the Dusky Tern, Anous stolidus unicolor.

McClymont's Ornithological Essays.

[Essays on early Ornithology and kindred subjects. By James R. McClymont. Pp. 1-34; 3 plates. London (Quaritch), 1920. Sm. 4to.]

In this little work Mr. McClymont endeavours to identify the birds mentioned in some of the old travellers' narratives, a fascinating task, though often difficult to bring to a satisfactory conclusion. His first attempt is to identify Marco Polo's "Rukh," a bird said to have an expanse of wing of thirty paces. This he frankly gives up in despair.

The birds met with during the first voyage of Vasco da Gama to India are perhaps less fanciful. Penguins still exist on the coasts of South Africa in very considerable numbers, as well as seals or, rather, sea-lions (Arctocephalus pusillus), though the latter are stated by our author to be no longer denizens of those regions. A reference to the volume on Mammals in the 'Fanna of South Africa' would have put this matter right. Other essays deal with the early voyages to the Banda or Spice Islands and to Western Australia and New Zealand.

We would suggest that the diving bird "plongeon," met with by Crozet on the island, since named Marion Island, in the southern Indian Ocean, is the Diving Petrel, Pelecanoides exul, a species which is very abundant in those waters.

It is interesting to find that the earliest use of the name Emu in English occurs in 'Purchas his pilgrimes,' where the bird is stated to occur on Banda Island in the Molucca group. The bird referred to was probably a Cassowary, which had been brought to Banda from Ceram. Skeat and the New English Dictionary state that Eme or Ema (whence Emu) is a Portuguese word for an Ostrich or Crane, but Mr. McClymont believes that the derivation is from "neâma," an Arabic name for the Cassowary, distorted by the Portuguese into "nma ema" and thence into Emu.

The volume is illustrated by three well-produced plates in black and white, and is a beautiful example of bookmaking.

Mathews on Australian Birds.

[The Birds of Australia. By Gregory M. Mathews. Vol. viii. pts. 3 & 4, pp. 145-24, pls. 382-394. London (Witherby), Aug. & Oct. 1920. 4to.]

In these two parts Mr. Mathews continues his account of the Muscicapidæ with the genera Ethelornis, Pseudogerygone, Iredaleornis, Pacilodryas, Tregellasia, Kempiella, Pachycephala, and Lewinornis.

This family has always been a source of trouble, as it has sometimes been included in the Turdidæ, while certain genera have been referred to the Laniidæ, as for instance Pachycephala.

Ethelornis was formed by Mr. Mathews to contain most of Sharpe's species of Pseudogerygone; they are comparatively large-billed, and all the nine members are of modest coloration. They are largely found in mangrove-swamps, but the habits of the various forms, both in this genus and its nearest neighbours, are but little known, except in the aggregate. Two subspecies are recognised.

E. cairnsensis is now raised to specific rank; it is brunneipectus of Sharpe, from Australia, but not New Guinea.
Here again there are two subspecies, one (robini) being new.
E. tenebrosus has three subspecies, of which one (whitlocki)
was formerly referred in error by Mr. Mathews to

magnirostris. E. chloronotus has also three subspecies. E. lævigaster is restricted to the north-west and Northern Territory west of the Roper River, cantator, mouki, and mastersi being now considered full species. E. lævigaster has two new subspecies out of four, while mastersi has a couple and cantator has one that is new. E. fuscus proving to be the same as E. culicivorus, both of Gould, the former name has priority, and six subspecies are admitted.

The yellow-breasted, black-throated Pseudogerygone palpebrosa is allowed to stand in a separate genus, with three Australian and two New Guinean subspecies—on considerations of colour.

Very different is that fine bird, Iredaleornis cinereifrons, of the Cardwell district, which has a near ally (armiti) in Papua.

The Pocilodryas series is divided, and Leucophanes is kept; while Plesiodryas is founded as a new genus for Megalestes of Salvadori, Papualestes for Myiolestes cyanus of that author, Gennæodryas for Eopsaltria placens of Ramsay, not to mention Tregellasia and other forms.

Pocilodryas superciliosa has two subspecies, P. cerviniventris four, Tregellasia capito three, T. leucops two, but the type-species is extralimital.

It will be remembered that the name Kempiella kempi was bestowed in 1913 by the author on a new bird from Cape York, of which little is yet known.

The Thickheads are an interesting series of Australian forms, well known for their fine songs and lively coloration. Three species are recognised of the yellow-breasted forms, Pachycephalu pectoralis, P. robusta, and P. melanura with eleven, six, and two subspecies respectively, of which P. r. intercedens is new, as are P. p. bettingtoni, myponga, and interjecta.

The Rufous-breasted Thickhead is still called *Lewinornis*, and *L. rufiventris* has several subspecies, which will be tabulated in the next part.

Since Watling in his drawings figured *P. pectoralis* and Latham described it, there has been terrible confusion in

the genus, as will be seen by reading p. 216; while Mr. Mathews will doubtless wish us to emphasize his regrouping, which has the coloration of the female as a distinctive feature.

Mullens, Swann, and Jourdain's Bibliography.

[A Geographical Bibliography of British Ornithology from the earliest times to the end of 1918, arranged under counties. By W. H. Mullens, H. Kirke Swann, and Rev. F. C. R. Jourdain. Pts. 4-6, pp. 289-558 (completed). London (Witherby), 1920. 8vo.]

On the conclusion of this most useful piece of work, for which all British ornithologists must feel grafeful to the authors, it is our pleasant duty to congratulate them on its completeness and accuracy. We have been carefully through the pages, and find little to suggest in the way of alteration, should a second impression be called for. We do not like the abbreviation "s" for "shire," as Banffs for Banffshire, especially as it is not used consistently. The omission of "Co" in many Irish records would possibly have been an equal saving in printing; but this is a small matter. A very important point is the collection of records from newspapers, such as 'The Field,' and from small local periodicals; here workers will be saved an enormous amount of trouble in hunting through the annual files.

It is to be hoped that all readers will send a note to the authors of any omission; as a supplement, if not a new edition, is sure to be the ontcome of this comprehensive work. So far we have noticed no such omissions.

Ogilvie on British Birds.

[Field observations on British Birds. By a Sportsman Naturalist (the late Fergus Menteith Ogilvie, M.A., M.B., etc.). Edited by Henry Balfour, M.A., with a fereword by Mrs. John Massie. Pp. xvi+228; 6 pls.; portr.; 3 maps & 14 text-figs. London (Selwyn & Blount), 1920. 8vo.]

It is not necessary to read more than Number I—"On some of the commoner Wading Birds"—of the eight sections into which this book is divided to realize that Mr. Ogilvie

was a remarkably close and accurate observer of bird-life, and that he was able to record his observations in a delightfully simple and charming manner.

Many interesting accounts are given of a variety of birds—the Gannet, Shag, Cormorant, Norfolk Plover, Nightjar, Stonechat, Short-eared Owl, and several Accipitrine birds are a few concerning which the author supplies information, gathered in every case at first hand. His essay on the Snipe is a really valuable contribution to ornithology; no fewer than thirty-three pages are devoted to this species, and not one line is dull reading.

In his essay on the Grey Partridge, Mr. Ogilvie pays a well-deserved compliment to Mr. Ogilvie-Grant as being the first authority to point out the plumage differences of the male and female Partridge, finally exploding the old incorrect theory, still so often held by sportsmen, that the male bird alone has a horseshoe on its breast. Mr. Ogilvie fully bears out Mr. Ogilvie-Grant's deductions, and corroboration from so careful a source is always welcome.

Both the Grey and the French Red-legged Partridge are dealt with in this article, which may be strongly recommended to future monographers of the birds in question. It is worthy of note that Mr. Ogilvie puts forward a strong plea on behalf of the "Frenchman," and anyone who has shot these sporting birds will surely endorse his views.

A chapter of peculiar economic interest, both to sportsmen and agriculturists, contains the results of the author's investigations into the food of the three Scotch game-birds—the Red Grouse, the Blackeock, and the Ptarmigan, and, incidentally, of the Cuckoo; while in a later chapter the food of some of our commoner Falconidæ is discussed.

Attention is drawn to the desirability of altering, by Act of Parliament, the opening date when Black Game may be shot from the 20th of August to the 1st of October, and correspondingly the close season commencing on the 1st of February instead of the 10th of December, as is at present the case—a change which from every point of view seems advisable.

Mr. Ogilvie's views on the Wild Birds Protection Act and the anomalies which he cites may be commended to the Standing Committee recently chosen to advise the Home Secretary on this controversial subject.

A delightful description of Mr. Ogilvie's first meeting with processionary eaterpillars (*Cnethocampa pityocampa*) in southern France, though hardly within the scope of this review, serves to show that he was a naturalist whose interests were not eramped within the narrow limits of a collector's horizon.

In his chapter on Wild Geese we would specially draw attention to plates iv. and v., depicting the colours of the soft parts of Anser cinereus and A. albifrons, from coloured drawings done by the author immediately after death; the colouring there produced is admittedly different from plates usually accepted as correctly portraying the soft parts (not excepting Alphéraky's celebrated work). Mr. Ogilvic's remarks on this subject are well worthy of careful study.

That Ogilvie was a keen collector is perhaps to put it too mildly, and in this connection his carefully considered remarks on pp. 12 and 13 on the shooting or collecting of rare wanderers will provide food for reflection and some for criticism; but it must be remembered that Ogilvie made exceptionally good use of every rare bird he shot, and judged from his own standpoint, his arguments are perfectly sound. No finer working series of British Birds has ever been made, as the reviewer can testify from personal examination of the Ogilvie Collection in the British Museum.

In a book in which accuracy seems to be the keynote, it seems a pity that the Latin names occasionally employed should not, in a number of cases, have been brought up to date: for instance, on p. 107, out of four of the scientific names there mentioned, three are incorrect according to modern nomenclatural methods. An editorial note to this effect would have been a simple matter. Perhaps the editor has long since given up attempting to march with the constant changes in nomenclature to which we are subjected.

The B.O.U. List of British Birds (1915) might, however, have been consulted with advantage, if only for the sake of that uniformity which we are all striving to reach.

At the time of his death Ogilvie was engaged in writing an important ornithological work which will now, unfortunately, never be published. If his "Field Observations on British Birds" are anything to judge by, ornithology has, by the author's untimely death, been robbed of an exceptionally valuable contribution, even in these days of accurate observers and accomplished writers.

Ornithologists and sportsmen alike owe a debt of gratitude to Mr. Henry Balfour, who has edited this volume "as a tribute," we are told in the Preface, "to one whose death involved a great loss to ornithological science," how great a loss only those who read Mr. Ogilvie's book for themselves can properly appreciate.—D. A. B.

Ritchie on the Influence of Man on Animals.

[The Influence of Man on Animal Life in Scotland: A study in faunal evolution. By James Ritchie, M.A., etc. Pp. xvi+550, many illustr., and 8 maps. Cambridge (Univ. Press). 1920. Large 8vo.]

This work is based on a series of lectures delivered by the author in Aberdeen in 1917, and deals at length with the effects produced by man and his manifold works on the various forms of animal life. The author endeavours to trace the different ways in which man's power has worked and is working, and to realize to what degree a fauna of to-day owes its character and composition to his interference with nature.

For the purpose of this study a fauna of a manageable compass was necessary, and Scotland was found to be most suited to form a basis. An introduction deals with the arrival of man in Scotland, which did not take place till comparatively late, as the whole country appears to have been covered with an ice-sheet long after man inhabited the south of England, and the earliest Scots belonged to the Neolithic period of culture. Part I. deals with the deliberate interference by man with animal life under the headings

of domestication, destruction for safety, food or sport, protection, and the deliberate introduction of new animals. Part II. recounts man's indirect interference with animal life by the destruction of forest, the increase of cultivation, and other minor factors.

As regards birds, the author traces the history of the Domestic Pigeon in Scotland, and also of two ancient Scottish breeds of fowls, the Dumpy and the Scots Grey.

The history of the destruction of the larger birds of prey and the Great Auk are told with considerable detail, and of the introduction and spread of the Pheasant and Capercaillie; the gradual extension of the range of the latter is illustrated by a map.

The work is written in charming style with many quotations from the older writers and poets, and the illustrations are numerous and well chosen, and though it is on the larger mammals that the effects of man's influence has been mostly felt, it is remarkable how human civilization has affected even the less conspicuous and more humble forms of life. We can thoroughly recommend the book to ornithologists and others as full of information and interest.

Robinson and Kloss on Sumatran Birds.

[On a Collection of Birds from N.E. Sumatra. By H. C. Robinson and C. Boden Kloss. Journ. Straits Branch R. Asiatic Soc. no. 80, 1919, pp. 73–133; 1 map.]

In this paper Messrs. Robinson and Kloss deal with a collection of birds made by a Dutch planter, Heer A. C. F. A. van Heyst, in the Deli district of north-eastern Sumatra. The country in which the collection was made ranges from the mangrove forest of the coast, through the low-lying districts planted with tobacco, and thence to the central mountainous country, rising to elevations of 4000 to 5000 feet. Representatives of 242 species were obtained and four new forms are described, namely—Macropygia ruficeps sumatranus, Brachylophus chlorolophus vanheysti, Cyornis vanheysti, and Buchanya leucophæa batakensis. Four other species are recorded from Sumatra for the first time. A good

outline-map shows very clearly the exact situation of cach collecting-station.

Stresemann on the Birds of Macedonia.

[Avifauna Macedonica. Die ornithologischen Ergebnisse der Forschungsreisen unternommen nach Mazedonien durch Prof. Dr. Doffein und Prof. L. Müller-Mainz in den Jahren 1917 und 1918. Von Dr. Erwin Stresemann. Pp. xxiv+270; 6 pls. München (Dultz), 1920. 8vo.]

During the occupation of the greater part of Macedonia by the German forces a Survey Commission was formed for the zoological exploration of the country, which was up to that time hardly known. Some 3258 bird-skins, representing 168 species and subspecies, were collected by Professors Doflein and Müller during a period of about sixteen months in 1917 and 1918, and these were all deposited in the State Museum at Munich.

A very full and complete report on these collections has been drawn up by Dr. Stresemann. Many of the species were collected in long series of often over 50 specimens. This has enabled him in many cases to give detailed accounts of the development of the different plumages and of the moult. There are also paragraphs on individual and geographical variation, and on distribution and biology or habits in Macedonia, these last being compiled chiefly from Prof. Müller's notes. A complete list of the specimens of all the species with wing-measurements and other details is given. and the nomenclature is of the most advanced character. We notice only two new names—Galerida cristata mühlei nom, nov. pro G. c. ferruginea Mühle for the Crested Lark of Greece, and Budytes flavus macronyx subsp. n. for the Yellow Wagtail of north-eastern Siberia; but several forms mentioned in the account of the collection, such as Carduelis c. balcanica, Cettia cetti mülleri, Cinclus cinclus orientalis, Dryobates major balcanicus, Picus viridis dofleini, have been described as new in a previous publication. Following the description of the collections is a notice of other species recorded from Macedonia, and finally a complete systematic list of all the birds hitherto known from that country.

Four of the plates contain photographic views of some of the localities where collections were formed, and on two others, illustrated by a graphic method, the variation of the wing-lengths of several forms.

We must congratulate Dr. Stresemann on having accomplished a fine piece of work, which will be essential for all future students of the fauna of south-eastern Europe.

Tuverner's recent papers on Canadian ornithology.

[Birds of Eastern Canada. By P. A. Taverner. Canada, Geological Survey Memoir 104 (no. 3, Biological series), pp. iv+297; 49 col. pls., 68 text-figs. Ottawa (Govt. Printer), 1919. 8vo.]

[The Birds of the Red Deer River, Alberta. By P. A. Taverner, Auk, xxxvi. 1919, pp. 1-21, 248-265; 4 pls.]

[Bird-houses and their Occupants. By P. A. Taverner. Ottawa Naturalist, xxxii. 1919, pp. 119-126.]

[The Birds of Shoal Lake, Manitoba. 1d., ibid. xxxii. pp. 137-144, 157-164; xxxiii. pp. 12-20.]

The first and most important of Mr. Taverner's publications is his handbook of the birds of eastern Canada. It contains a large amount of concise information packed into a comparatively small compass, and deals with 766 species of Canadian birds, all those likely to be met with in Canada from the woodlands of the eastern half of Manitoba to the Atlantic coast.

The species are emphasized at the expense of the subspecies, which are merely mentioned in a paragraph. Under each species is given the recognized English name, other vernacular names in use, the French-Canadian name, and the scientific name from the A. O. U. Check-list. Then follow short paragraphs on distinctive characters, field-marks, nesting, distribution, subspecies, and economic status. The coloured illustrations, two on each plate, are necessarily somewhat small, but are on the whole very successful, and will be found most useful for identification. They are prepared by Mr. Frank Hennessey, of Ottawa, and reflect great credit on the artist.

In the first part of the work is a good key, based on that in Mr. Chapman's 'Handbook of the Birds of Eastern North America,' which will be of great help to the beginner. In fact, the book is essentially a popular one in the best sense of the word, and is just such a one as should be placed in the hands of any newcomer with ornithological tastes arriving in Canada.

The second publication has already been mentioned in our notice of the 'Auk,' in which it was published. The third paper gives directions and useful hints for the construction and fixing-up of nesting-boxes, especially for the Purple Martin (*Progne subis*), for which a very elaborate construction resembling a pigeon-house is often built in America. The last paper deals with the avifauna of Shoal Lake, situated about 35 miles from Winnipeg, a favourite resort of many different kinds of water-birds and ducks which breed there in considerable numbers.

Todd on new Colombian Birds.

[Descriptions of apparently new Colombian Birds. By W. E. Clyde Todd. Proc. Biol. Soc. Washington, vol. 32, 1919, pp. 113-118.]

Nineteen new forms are characterized, all with one exception obtained by Mr. M. A. Carriker, jr., in different parts of Colombia. The list of these will be found in the 'Zoological Record,' and it does not seem worth while repeating them here. It would appear that the ornithological riches of the northern portion of the South American continent are even yet unexhausted, so constant is the stream of new species and subspecies still being described.

Townsend and Wetmore on Pacific Island Birds.

[Reports on the scientific results of the expedition to the tropical Pacific in charge of Alexander Agassiz, on the U.S. Fish Commission steamer 'Albatross' from August 1899 to March 1900, Commander Jefferson F. Moser, U.S.N., cemmanding. XXI. The Birds. By Charles Haskins Townsend and Alexander Wetmore. Bull. Mus. Comp. Zoöl. Cambridge, Mass., lxiii. 1919, pp. 151-225.]

The voyage of the 'Albatross' in the winter of 1899-1900, under the direction of the late Mr. Alexander Agassiz, was made for the purpose of studying the formation of coral-reefs

and making investigations in the marine fauna, especially of the deeper parts of the Pacific, and the collection of birds was quite a secondary consideration. Nevertheless, some 390 skins, 93 species and subspecies, were collected from 33 different islands; and this report, though somewhat belated, is of considerable importance, and must be consulted by anyone interested in the Pacific avifanna.

The land-birds, though few in number, have been subjected to isolation, and a study of their variation, due doubtless to this cause, is of very great interest.

The first portion of the paper by Mr. Townsend, who accompanied the expedition, contains a journal of the islands visited, with remarks on their physical characters. The groups where collections were made included the Marquesas, Paumotu, Society, Tonga, Fiji, Gilbert, Caroline and Ladrone The second half of the paper by Mr. A. archinelagoes. Wetmore contains an annotated list of the species obtained, with a good many interesting remarks on taxonomy and classification, and descriptions of a certain number of new subspecies. Mr. Wetmore appears to have been somewhat hampered in his determinations by the absence of sufficient material for comparison in the Museum at Washington, and in some cases his views by no means coincide with those of Mr. G. M. Mathews, especially in regard to the name of the Red-footed Booby, which he believes must retain Linnaus's name, Sula piscator.

It is interesting to learn that on some of the Pacific Islands the Frigate-birds are domesticated, and used like Carrier Pigeons for carrying messages from one island to another.

Wetmore on lead-poisoning in Ducks.

[Lead-poisoning in Water-fowl. By Alexander Wetmore. Washington, D.C., U.S. Dept. Agr. Bull. no. 723, 1919, pp. 1-12; 1 pl.]

Mr. Wetmore finds that in many parts of America, where duck-shooting is carried on on a large scale, the mud-flats become full of shot, which are eaten in considerable quantities by the water-fowl, and cause a distinct sickness, the symptoms

of which he describes. As lead is known to be an abortifacient in the females of mammals, it is probably also so in birds, and some experiments confirming this have shown that lead has a powerful effect on the virility of domestic fowls.

No suggestions for the alleviation of this trouble is proposed by Mr. Wetmore at the present time, but the cause and symptoms of the poisoning are described in order to bring it under wider notice, in the hope that some method may be discovered in the future of preventing this malady.

Wood on the eye of the Burrowing Owl.

[The eyes of the Burrowing Owl [Speotyto cunicularia hypogæa], with special reference to the fundus oculi. By Casey A. Wood, M.D. Extr. from 'Contributions to Medical and Biological research,' dedicated to Sir William Osler, in honour of his seventieth birthday, July 12, 1919, by his pupils and co-workers. Pp. 818-823; 1 col. pl.]

This short paper by Dr. Wood, who has made the special study of the avian eye (see 'Ibis,' 1920, p. 306), shows that the structure of that organ of the Burrowing Owl is very distinctly adapted to nocturnal vision, and that this is correlated with its habits which are distinctly nocturnal, though it is sometimes seen in daytime.

The paper is illustrated with a beautiful coloured plate, showing the appearance of the eye when viewed with the ophthalmoscope. This was prepared from a drawing made by Mr. A. W. Head in the Zoological Gardens in London.

As the paper appears in a special volume of memoirs dedicated to Sir Wm. Osler, it is not likely to be seen by many ornithologists, and for this reason we have drawn special attention to it.

Aquila.

[Aquila: Periodical of Ornithology. Vols. xxi.-xxv. for the years 1914-1918. Budapest.]

The annual volumes of 'Aquila,' the official journal of the central government office for ornithological studies in Hungary for the years of the war, have recently reached us, and the troublons times do not appear to have diminished 1921.

the activity of the Hungarian ornithologists, or to have restricted the publication of the results of their investigations. Otto Herman, the original editor and founder of the organization, died on 27 December, 1914, and was succeeded by Titus Csörgey for the 1915 volume; since then the responsible editor appears to be Stefan Chernel von Chernelhaza. The volumes are bilingual, in Magyar and German.

Here we can do little more than indicate the principal contents. The 1914 volume has a sympathetic memoir on Dr. Herman, with a portrait and a bibliography of his published work. There are papers on the osteology of the Occilated Turkey (Agriochoris occilata) by Dr. Shufeldt of Washington, on the morphology of the avian metacarpus and on some Pleistoceue bird-bones by Dr. Lambrecht. Messrs. J. Schenk and K. Hegyfoky report on migration in Hungary during the previous year; while Dr. J. Greschik writes on anatomy and histology, and Messrs. E. Csiki and G. Bittera on the food and economic status of various Hungarian birds.

The other volumes contain papers on the same or similar topies, all more or less closely concerned with Hungarian ornithology.

The last volume of the series contains an account of the historical development of the study of Hungarian Ornithology by Mr. J. Schenk, and two appendices. The first of these, by the Editor, is a Nomenclator Avium Regni Hungariae, a checklist drawn up on the lines of the B.O. U. List, but without any distribution, followed by notes on the nomenclature in disputed or doubtful cases. Dr. Chernel does not follow the International rules altogether. He will not use the same generic and specific names, and calls the White-eyed Pochard Nyroca ferruginea instead of Nyroca nyroca. He also sticks to Anas boschas for the Mallard and Turdus musicus for the Song-Thrush, and gives his reasons for so doing. The second supplement to the 1918 volume contains an elaborate memoir on the former and present breeding places of the two White Egrets, Herodias alba

and *H. garzetta*, in Hungary, illustrated with maps and plans in view of their possible preservation by special legislation in the near future.

The Ank.

[The Auk: A Quarterly Journal of Ornithology. Vol. xxxviii. for 1920.]

The volume of the 'Auk' for last year contains a good many articles of general interest as well as many faunal papers which are more attractive to those living on the other side of the Atlantic.

Mr. H. Beck writes on the occult senses in birds, one instance of which is the "homing" sense which exists to a remarkable degree not only in the homing pigeon but also in certain sea-birds. The experiment undertaken at the marine laboratory of the Tortugas in releasing Sooty Terns many hundreds of miles away from those islands and the return of these marked birds, has proved the existence of one of these. An instance of another mysterious sense is the food-finding instinct. A carcass of a dog hidden in a hole and quite invisible from above was discovered within three hours by a pair of Buzzards (Cathartes), although there were known to be none of these birds within many miles, and Mr. Beck believes that it would have been impossible to detect the carcass either by sight or smell.

In an article entitled "sequestration notes" Mr. J. Grinnell develops a thesis that among certain non-flocking foraging birds, such as Ruby-crowned Kinglets (Regulus) and Andubon Warblers (Dendroica), a special note exists to warn other birds to keep out of territory already occupied; while Mr. J. T. Nichols writes at length on the voices of the Waders or Shore-birds, of which he has made a life-long study, especially on Long Island.

A valuable paper on the generic and specific characters of the Ceryline group of Kingfishers is contributed by Mr. W. de W. Miller. These he groups in three genera, *Megaceryle*, *Ceryle*, and *Chloroceryle*. Mr. Loomis identifies *Procellaria* alba of Gmelin, founded on a bird obtained during Cook's

second voyage, as the species now known as Pterodroma parvirostris (Peale) from Christmas Island of the Fanning group. Mr. W. E. Clyde Todd monographs the South American Crested Quails of the genus Eupsychortyx, and illustrates their distinctive characters by a coloured plate and their distribution by two maps. Dr. J. Dwight, who has long been engaged in the study of moult and change of plumage, has an interesting and instructive article on the Gulls. He believes that the smaller gulls attain their adult dress in the second year, while in the largest forms this process is prolonged until the fourth year. He also points out that younger birds can be detected by the more pointed shape of the primaries and by the more rounded ends of the tail-feathers. The successive plumages of Larus philadelphia and L. argentatus are described at length and illustrated on five carefully drawn plates. The question of the distinctive characters of the Common and Barrow's Golden-eye are discussed at length by Mr. Allan Brooks, as well as some other points in regard to the ducks of British Columbia; his remarks are illustrated by some fascinating drawings from his own brush.

The Killdeer Plover (Oxyechus vociferus), a common North-American bird, has long been known to range to South America, but was supposed to go there only during the winter months as a migrant. Recently Mr. Harry Watkins, who has been collecting for the American Museum in New York, has sent to Mr. Chapman fourteen examples of the Killdeer which he found breeding on the coast of Peru. The bird turns out to be separable from the North-American one, and is named Oxyechus vociferus peruvianus by Mr. Chapman.

Another new bird described is a duck of the Mallard group found in New Mexico and named by Mr. W. Huber Anas novimexicana.

Of the faunal papers, Mr. S. Cobb writes on the birds of the Catskill Mountains in New York, Mr. L. Griscom on those of Texas, and Mr. F. C. Lincoln on Colorado birds, Messrs. Fleming & Lloyd on Ontario birds, and Mr. Wetmore on the birds of Lake Burford in New Mexico. Mr. G. D. Hanna, who has spent six summers and four winters on the Pribilof Islands in Behring Sea, has added a good many species to the list of birds occurring there, including four species new to the North American list—the Falcated Teal (Eunetta falcata), the Sea-Eagle (Thalassonëtus pelugicus), a Wader (Heteroscelus brevipes), and a Pipit (Anthus spinoletta japonicus).

The frontispiece of the volume is a fine portrait of the late William Brewster, whose memory is honoured in a sympathetic appreciation by Mr. H. W. Henshaw. There is also a long notice, with a portrait, of Lyman Belding the Nestor of Californian ornithologists, who died in 1917 at the age of eighty-eight years, by Mr. A. K. Fisher.

El Hornero.

[El Hornero. Revista de la Sociedad Ornitologica del Plata. Vol. i. 1917–1919.]

The first volume of 'El Hornero,' consisting of four parts, is now complete, and we must congratulate the editor, Dr. R. Dabbene, and his contributors on the success of their venture. Each number contains several good articles on some subject of Argentine ornithology, many shorter notes, and some personal paragraphs. The illustrations are chiefly from photographs.

Dr. Dabbene himself has an article running through three numbers on the Laridæ of Argentina, in which all the species are listed, with distribution and keys for the determination of the species, and useful outline sketches of bills, wings, and feet.

Señor L. Dinelli has some field-notes on the niditication of birds collected by him in the north-west of Argentina some years ago, which were worked out by Dr. Hartert and Señor Venturi in the 'Novitates Zoologica' in 1909.

In an article on "The fantastic ornithology of the Conquestadores," Señor Carduso recalls the observations and records of the carlier explorers from Magallanes in 1520 onwards, and reproduces some of their quaint

illustrations; Señor Serié gives ample directions for the preparation and conservation of bird-skins; while M. Doello-Jurado writes a special article on the curious nests of the two species of Oven-bird (Furnarius cristatus and F. rufus), called Hornero in the Spanish vernacular, from which the journal takes its name.

Several new forms are described: Batara cinerea argentina from the Jujuy Province, by Mr. Stewart Shipton; Penelope nigrifrons and Spinus icterus magnirostris, also from the mountainous regions of the north-western Argentina, by Dr. R. Dabbene.

List of other Ornithological Publications received.

Bartsch, P. The Bird Rookeries of the Tortugas. (Smiths. Rep. for 1917, pp. 469-500.)

CHAPMAN, F. M. Unusual types of apparent geographic variation in colour and of individual variation in size exhibited by Ostinops decumanus. (Proc. Biol. Soc. Wash. vol. 33, pp. 25-32.)

Christiani, A. Den Vestnorske Skaerpiber (Anthus petrosus schiøleri, subsp. nov.). (Dansk. Ornith. For. Tids. 1920, pp. 157-162.)

COWARD, T. A. The Birds of the British Isles and their eggs. 2nd ser. FLETCHER, T. B., and INGLIS, C. M. Some Common Indian Birds. No. 4. The Cattle Egret. (Agr. John, India, xv. pp. 373-375.)

HARTERT, E. Die Vögel der pal. Fauna. (Heft. 11-12.)

LAUBMANN, A. Kritische Untersuchungen über die Genotypfixierungen in Lesson's "Manual d'Ornithologie," 1828. (Arch. Naturges. vol. 85, 1920, pp. 137-168.)

McGregor, R. C. Some features of the Philippine Ornis. (Philippine Journ. Sci. vol. 16, pp. 361-437.)

Микриу, R. C. The Zoological Park of Lima, Peru. (Zool. Soc. Bull. xxiii. pp. 95-100.)

Skovgaard, P. Den Sorte Stork saerlig i Danmark. (Viborg, 1920.) SWARTH, H. S. Revision of the avian genus Passerella. (Univ. California Publ. Zool. vol. 21, pp. 75-224.)

Szielasko, A. Die Gestalten der normalen und abnormen Vogeleier. (Berlin, 1920.)

WITHERBY, H. F. A Practical Handbook of British Birds. (Part ix.) Avicultural Magazine. (Vol. xi. nos. 10-12.)

Bird-Lore. (Vol. xxii. nos. 5-6.)

Bird-Notes, (Vol. iii. nos. 9-11.)

British Birds. (Vol. xiv. nos. 5-7.)

Brooklyn Museum Quarterly. (Vol. vii. no. 4.) Canadian Field-Naturalist. (Vol. xxxiv. no. 4.) Cassinia. (No. 23 for 1919, issued Oct. 1920.) Club van Nederlandsche Vogelkundigen. (Vol. x. pts. 3-4.) Condor. (Vol. xxii. no. 5.) Danske Fugle. (Vol. i. no. 1.) El Hornero. (Vol. ii. no. 1.) Emu. (Vol. xx. pts. 1-2.) Fauna och Flora. (1920, pts. 4-5.) Gerfaut. (10e ann., pt. 3.) Irish Naturalist. (Vol. xxix. nos. 10-12.) Journal of the Bombay Nat. Hist. Soc. (Vol. xxvii. no. 1.) Journ. Fed. Malay States Museums. (Vol. ix. pt. 2.) Journal für Ornithologie. (Jahrg. 64-68, 1916-1920.) Ornithologische Monatsberichte. (Jahrg. 28, nos. 11-12.) Revue Française d'Ornithologie. (12e ann., nos. 138-139.) Revue d'Hist. nat. appl. L'Oiseau. (1920, nos. 10-11.) Scottish Naturalist. (1920, nos. 105-108.) Verhandlungen Orn. Ges. Bayern. (Vol. xiv. pts. 1-3 & suppl.)

X.—Letters, Extracts, and Notes.

The Birds of the Anglo-Egyptian Sudan.

Sir,—In the last part of their paper (Ibis, 1920, p. 815) Messrs. Sclater and Mackworth-Praed write of Stephanibyx melanopterus melanopterus: "Rüppell records a specimen of this bird from 'Nubia.' We should not regard it as admissible to the Sudanese list without further confirmation." There is a recent and confirmatory record. Mr. J. C. Phillips (Bull. Mus. Comp. Zoöl. Cambridge, Mass., vol. lviii. no. 1, p. 6) obtained a female example at Sennar on the 27th of December, 1912.

As my record of the Sanderling Crocethia alba alba appears to be the only one from the Sudan, I would like to add that the bird was shot in the early spring on the White Nile at Khartoum and was in partial breeding-plumage. I mounted it myself and left it, labelled with sex and date, in the Gordon College Museum.

Yours truly,
A. L. BUTLER.

St. Leonard's Park, Horsham, 28 October, 1920.